



**DRAFT FINAL
REMEDIAL INVESTIGATION REPORT
FOR THE
FORMER ARMCO HAMILTON PLANT SITE
401 Augspurgen Road, New Miami, Ohio**

**FIGURES
Figures 4.16.1-5 – 6.6.1-3**

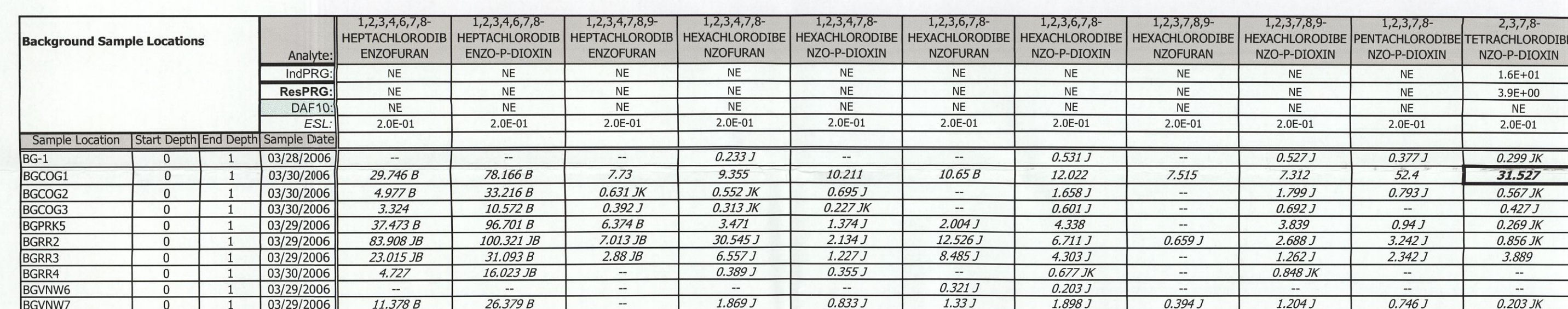
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November 2008

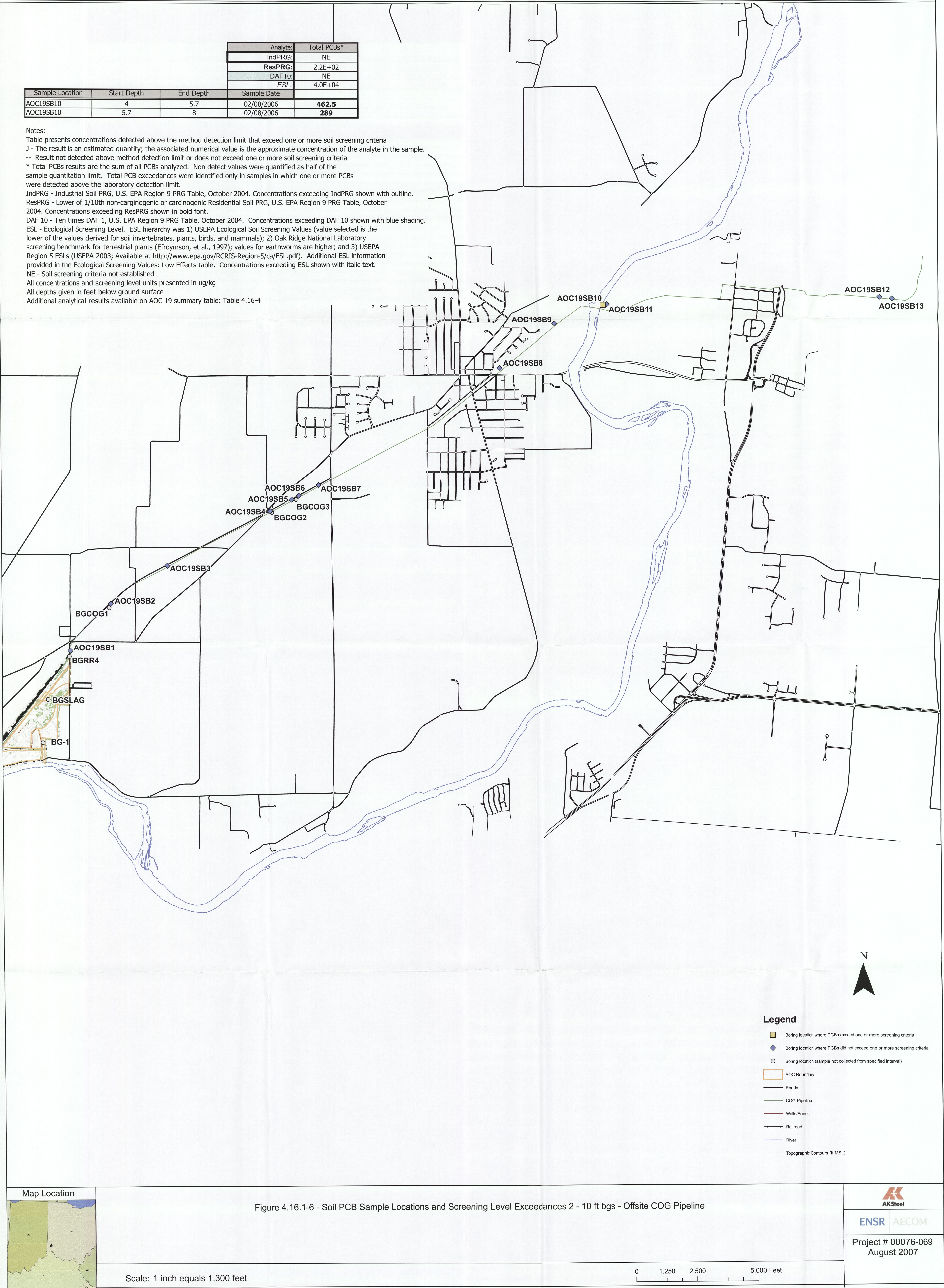
Notes:

- Table presents concentrations detected above the method detection limit that exceed one or more soil screening criteria
- B - Indicates method blank contamination.
- The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
- K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).
- Result not detected above method detection limit or does not exceed one or more soil screening criteria
- INDPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG, Table, October 2004. Concentrations exceeding INDPRG shown with outline.
- ResPRG - Level of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004. Concentrations exceeding ResPRG shown in bold font.
- DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004. Concentrations exceeding DAF 10 shown with blue shading.
- ESL - Ecological Screening Level, ESL Hierarchy step 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory's screening benchmark for terrestrial plants (Ermanson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003). Available at: <http://www.epa.gov/RCRIS-Region-5/ESL.pdf>. Additional ESL information provided in the Ecological Screening Benchmarks: Low Effects table. Concentrations exceeding ESL shown with italic text.
- NE - Soil screening criteria not established
- Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.
- All concentrations and screening level units presented in ng/kg
- All depths given in feet below ground surface
- Additional analytical results available on AOC 19 summary table: Table 4.16-5.



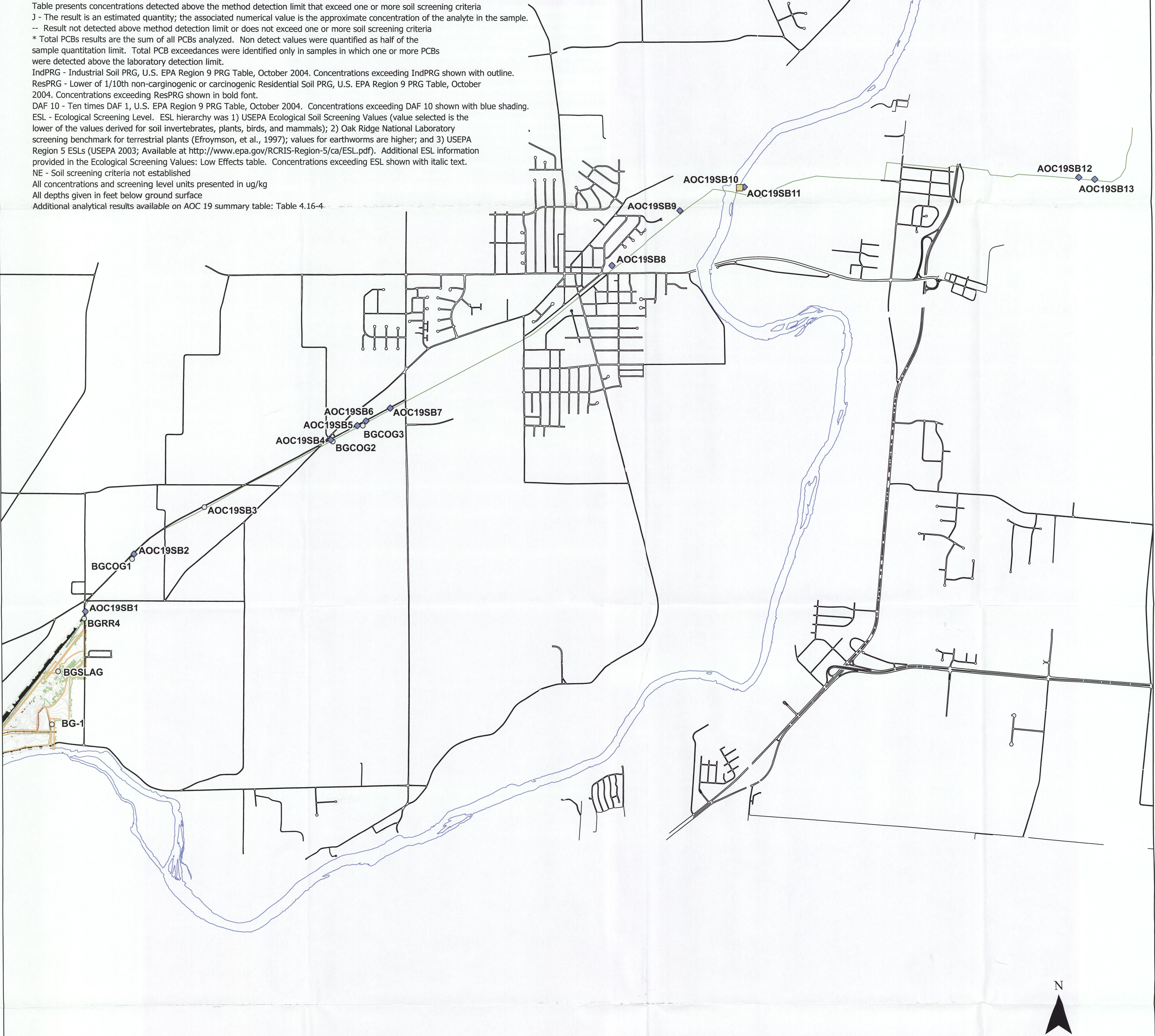
Analyte:				Total PCBs*
IndPRG:				NE
ResPRG:				2.2E+02
DAF10:				NE
ESL:				4.0E+04
Sample Location	Start Depth	End Depth	Sample Date	
AOC19SB10	4	5.7	02/08/2006	462.5
AOC19SB10	5.7	8	02/08/2006	289

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 J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
 -- Result not detected above method detection limit or does not exceed one or more soil screening criteria
 * Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.
 IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004. Concentrations exceeding IndPRG shown with outline.
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 DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004. Concentrations exceeding DAF 10 shown with blue shading.
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 NE - Soil screening criteria not established
 All concentrations and screening level units presented in ug/kg
 All depths given in feet below ground surface
 Additional analytical results available on AOC 19 summary table: Table 4.16-4



Analyte:				Total PCBs*
IndPRG:				NE
ResPRG:				2.2E+02
DAF10:				NE
ESL:				4.0E+04
Sample Location	Start Depth	End Depth	Sample Date	
AOC19SB10	0	1	02/08/2006	317.5

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 NE - Soil screening criteria not established
 All concentrations and screening level units presented in ug/kg
 All depths given in feet below ground surface
 Additional analytical results available on AOC 19 summary table: Table 4.16-4



- Legend**
- Boring location where PCBs exceed one or more screening criteria
 - Boring location where PCBs did not exceed one or more screening criteria
 - Boring location (sample not collected from specified interval)
 - AOC Boundary
 - COG Pipeline
 - Roads
 - Walls/Fences
 - Railroad
 - River
 - Topographic Contours (ft MSL)

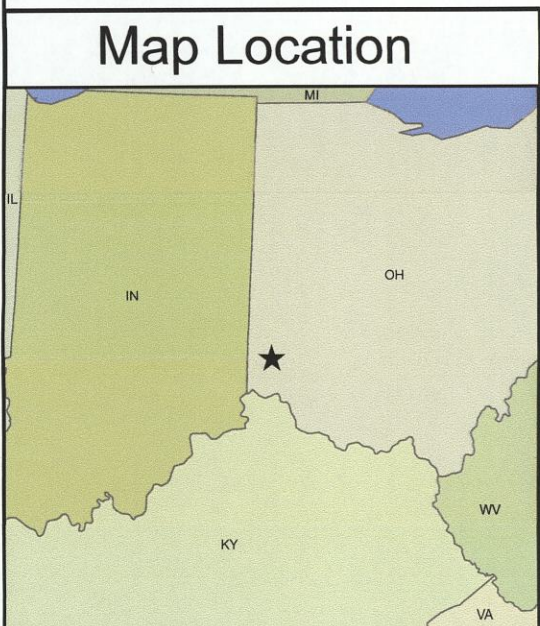


Figure 4.16.1-5 - Soil PCB Sample Locations and Screening Level Exceedances 0 - 2 ft bgs - Offsite COG Pipeline

Scale: 1 inch equals 1,300 feet

0 1,300 2,600 5,200 Feet

AKSteel

ENSR | AECOM

Project # 00076-069
August 2007

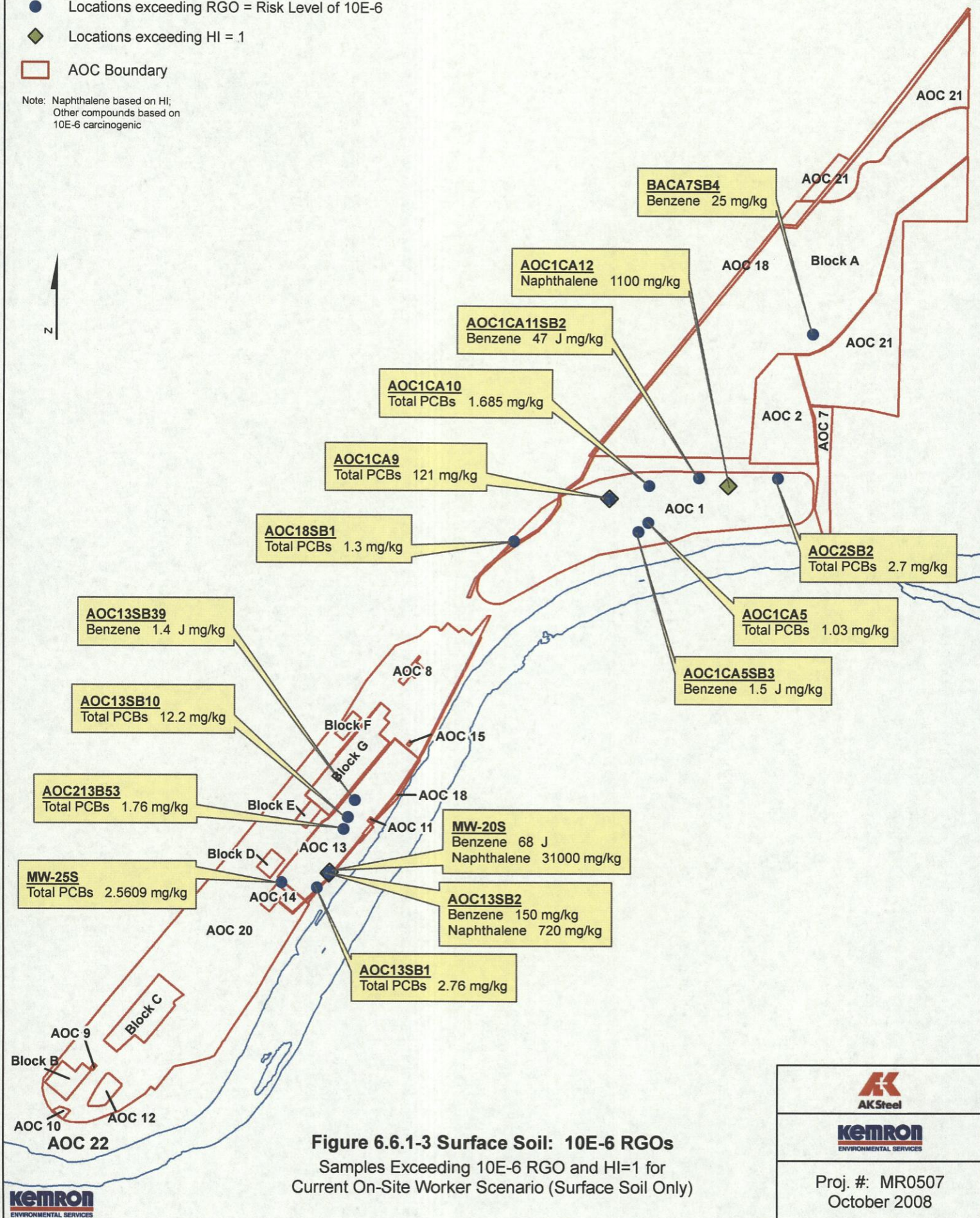
Legend

● Locations exceeding RGO = Risk Level of $10E-6$

◆ Locations exceeding HI = 1

□ AOC Boundary

Note: Naphthalene based on HI;
Other compounds based on
 $10E-6$ carcinogenic



Proj. #: MR0507
October 2008



Legend

- Locations exceeding RGO = Risk Level of $10E-5$
- ◆ Locations exceeding HI = 1
- AOC Boundary

Note: Naphthalene based on HI;
Other compounds based on
 $10E-5$ carcinogenic

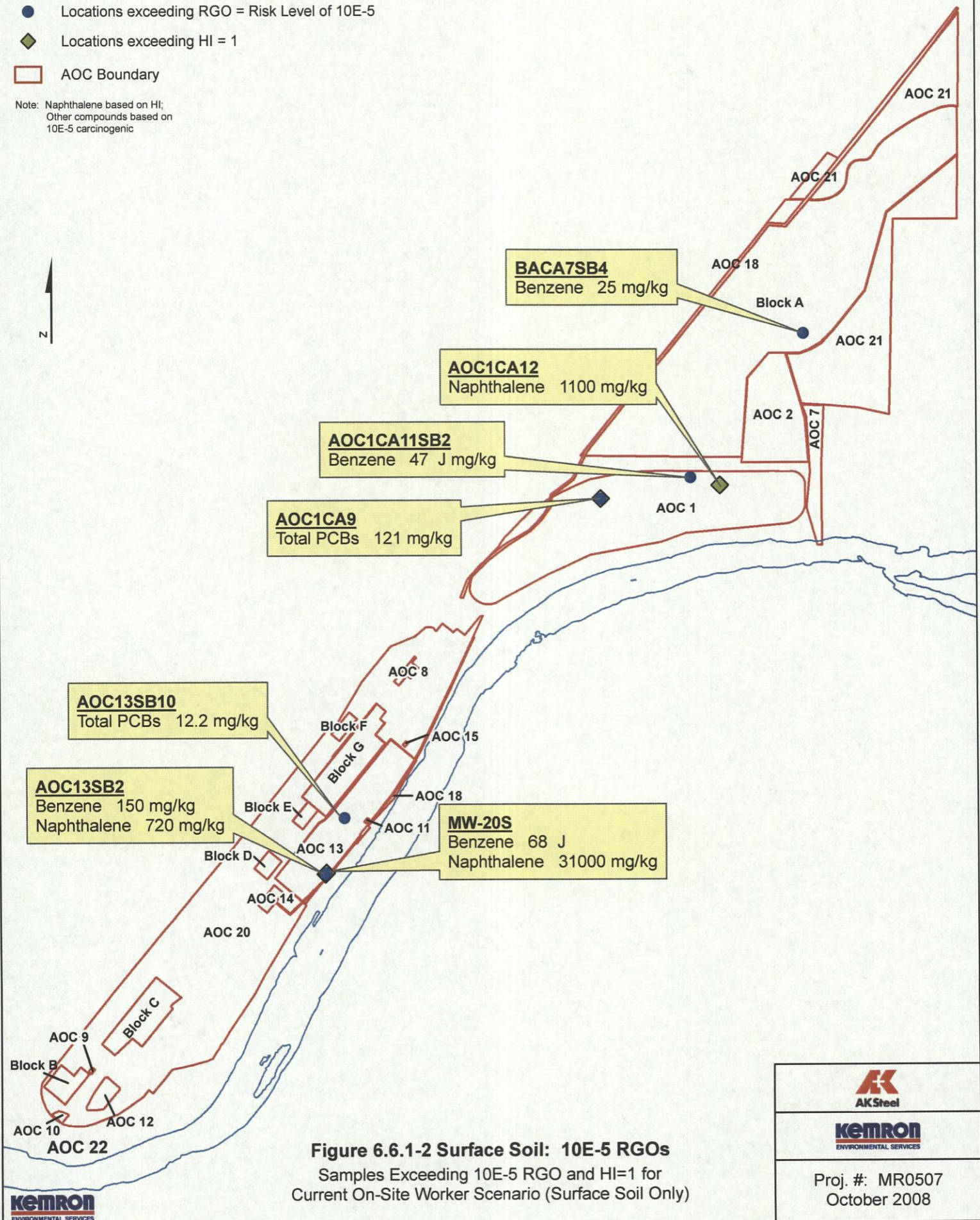


Figure 6.6.1-2 Surface Soil: $10E-5$ RGOs
Samples Exceeding $10E-5$ RGO and HI=1 for
Current On-Site Worker Scenario (Surface Soil Only)



Proj. #: MR0507
October 2008

Legend

● Locations exceeding RGO = Risk Level of $10E-4$

◆ Locations exceeding HI = 1

□ AOC Boundary

Note: Naphthalene based on HI;
Other compounds based on
 $10E-4$ carcinogenic

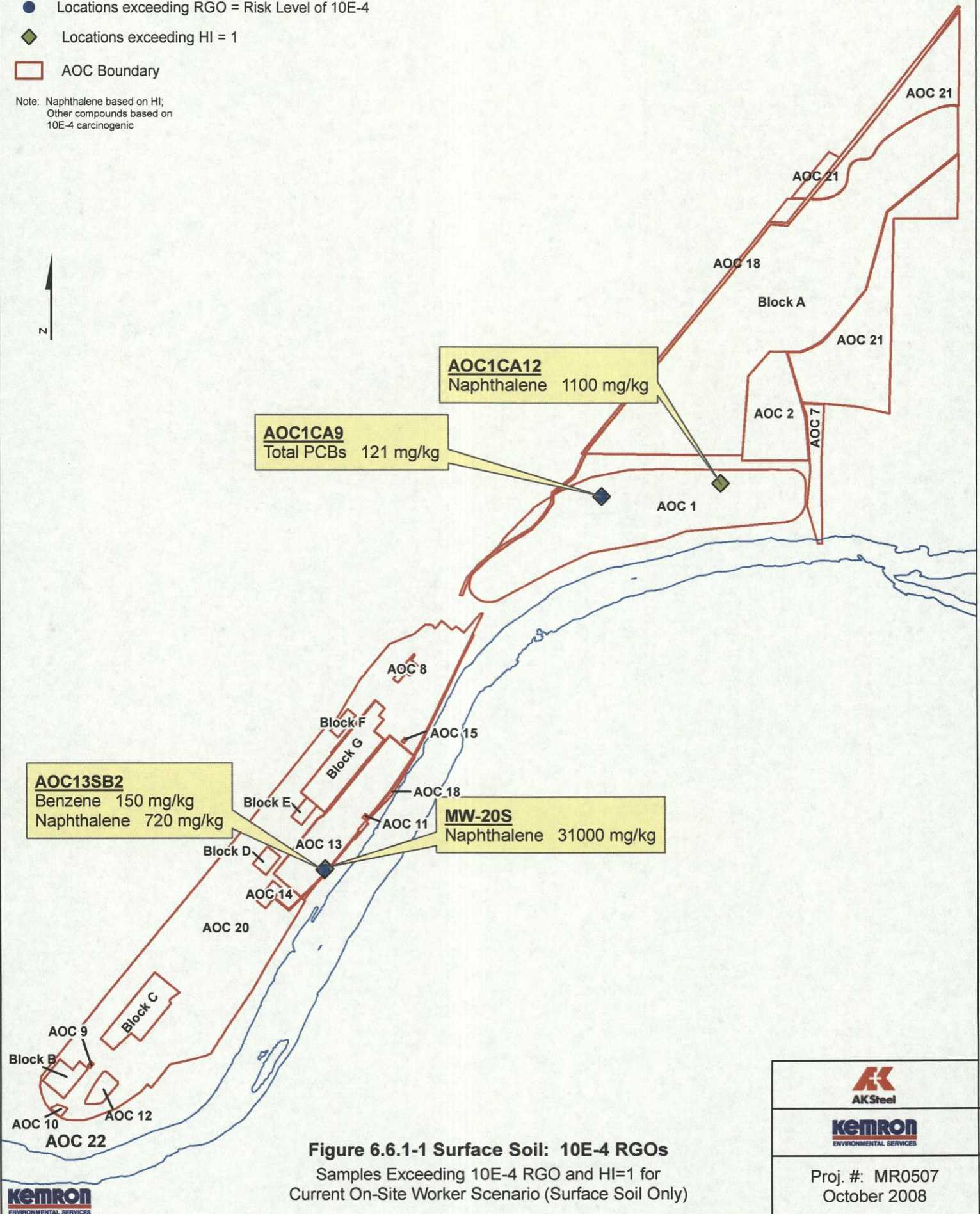


Figure 6.6.1-1 Surface Soil: $10E-4$ RGOs

Samples Exceeding $10E-4$ RGO and HI=1 for
Current On-Site Worker Scenario (Surface Soil Only)



Proj. #: MR0507
October 2008



Background Sample Locations				1,2,3,4,6,7,8- HEPTACHLORODIB ENZOFURAN	1,2,3,4,6,7,8- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,4,7,8,9- HEPTACHLORODIB ENZOFURAN	1,2,3,4,7,8- HEXACHLORODIBE NZOFURAN	1,2,3,4,7,8- HEXACHLORODIBE NZO-P-DIOXIN	1,2,3,6,7,8- HEXACHLORODIBE NZOFURAN	1,2,3,6,7,8- HEXACHLORODIBE NZO-P-DIOXIN	1,2,3,7,8,9- HEXACHLORODIBE NZOFURAN	1,2,3,7,8,9- HEXACHLORODIBE NZO-P-DIOXIN	1,2,3,7,8- PENTACHLORODIBE NZO-P-DIOXIN	2,3,7,8- TETRACHLORODIBE NZO-P-DIOXIN
Analyte:				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
IndPRG:				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
ResPRG:				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
DAF10:				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
ESL:				2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01
Sample Location	Start Depth	End Depth	Sample Date											
BG-1	0	1	03/28/2006				0.233 J			0.531 J		0.527 J	0.377 J	0.299 JK
BGCOG1	0	1	03/30/2006	29.746 B	78.166 B	7.73	9.355	10.211	10.65 B	12.022	7.515	7.312	52.4	31.827
BGCOG2	0	1	03/30/2006	4.577 B	22.215 B	0.631 JK	0.552 JK	0.695 J		1.658 J		1.799 J	0.793 J	0.567 JK
BGCOG3	0	1	03/30/2006	3.324	10.572 B	0.392 J	0.313 JK	0.227 JK		0.601 J		0.692 J		0.427 J
BGPRK5	0	1	03/29/2006	37.473 B	96.701 B	6.374 B	3.471	1.374 J	2.004 J	4.338		3.839	0.94 J	0.269 JK
BGRR2	0	1	03/29/2006	83.908 JB	100.321 JB	7.013 JB	30.545 J	2.134 J	12.526 J	6.711 J	0.659 J	2.688 J	3.242 J	0.856 JK
BGRR3	0	1	03/29/2006	23.015 JB	31.093 B	2.88 JB	6.557 J	1.227 J	8.485 J	4.303 J		1.262 J	2.342 J	3.889
BGRR4	0	1	03/30/2006	4.727	15.023 JB		0.389 J	0.355 J		0.677 JK		0.846 JK		
BGVNW6	0	1	03/29/2006					0.321 J	0.203 J					
BGVNW7	0	1	03/29/2006	11.378 B	26.379 B		1.869 J	0.833 J	1.33 J	1.898 J	0.394 J	1.204 J	0.746 J	0.203 JK

Notes:
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 Concentrations exceeding ESL shown with italic text.
 NE - Soil screening criteria not established
 All concentrations and screening level units presented in ng/kg
 All depths given in feet below ground surface
 Additional analytical results available on Background summary tables: Table 4.28-3.

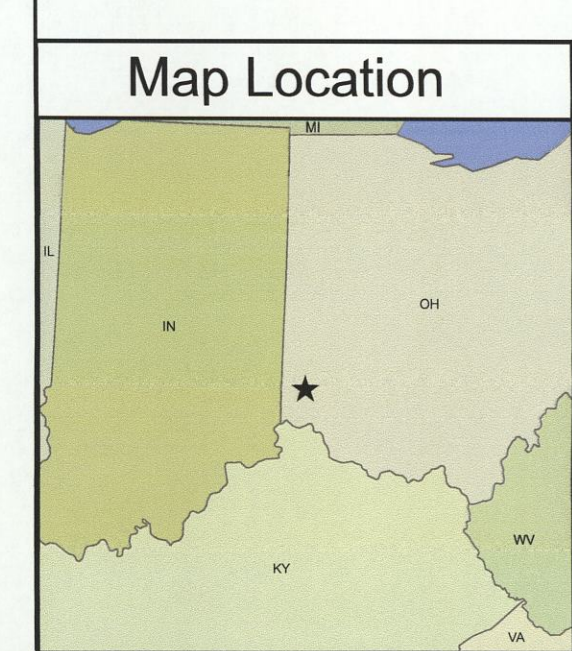


Figure 4.28.0-5 - Soil Dioxins Sample Locations and Screening Level Exceedances 0 - 2 ft bgs - Background

Scale: 1 inch equals 700 feet

Background Sample Locations				Analyte:	Arsenic	Cadmium	Chromium (total)	Cobalt	Copper	Iron	Lead	Manganese	Selenium	Vanadium	Zinc
				IndPRG:	1.59E+00	4.51E+02	NE	1.92E+03	4.09E+04	1.00E+05	8.00E+02	1.95E+04	5.11E+03	1.02E+03	1.00E+05
				ResPRG:	3.90E-01	3.70E+01	3.01E+01	9.03E+02	3.13E+03	2.35E+04	4.00E+02	1.76E+03	3.91E+02	7.82E+01	2.35E+04
				DAF 10:	1.00E+01	4.00E+00	2.00E+01	NE	NE	NE	NE	NE	3.00E+00	3.00E+03	6.30E+03
				ESL:	1.80E+01	3.60E+01	2.60E+01	1.30E+01	2.80E+01	NE	1.10E+01	5.00E+02	1.00E+00	7.80E+00	5.00E+01
Sample Location	Start Depth	End Depth	Sample Date												
BG-1	3	3.7	03/28/2006	7.3	--	--	--	--	--	--	11.8	601	5.3	28.4	66.4
BGCOG1	3	3.5	03/30/2006	9.4	--	--	--	14.1	--	--	16.7	999	2.4	35.1	--
BGCOG2	3	3.5	03/30/2006	10.4	--	--	--	--	--	--	11.9	594	2.0	37.0	55.8 J-
BGCOG3	3	3.5	03/30/2006	7.8	--	--	--	--	--	--	13.0 J	771	2.4	27.1	50.8 J-
BGPRK5	3	3.5	03/29/2006	5.3	--	--	--	--	--	--	--	--	--	12.2	75.0
BGRR2	3	3.5	03/29/2006	35.4	--	--	--	--	29.8	33300 J	51.5	--	8.0	11.7	158
BGRR4	3	3.6	03/30/2006	14.7	--	--	32.9	--	--	34600	16.9 J	769	2.4	39.3	82.6 J-
BGVNW6	3	3.3	03/29/2006	8.7	--	--	--	--	--	--	20.8	873	3.0	33.8	57.4
BGVNW7	2.2	2.5	03/29/2006	6.6	0.81	20.2	--	--	--	26300 J	285	676	2.6	13.6	446

Notes:
Table presents concentrations detected above the method detection limit that exceed one or more soil screening criteria
J- The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ - The result is an estimated quantity, but the result may be biased high.
J- - The result is an estimated quantity, but the result may be biased low.
-- Result not detected above method detection limit or does not exceed one or more soil screening criteria
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004. Concentrations exceeding IndPRG shown with outline.
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NE - Soil screening criteria not established
All concentrations and screening level units presented in ug/kg
All depths given in feet below ground surface
Additional analytical results available on Background summary tables: Table 4.28-2.



Background Sample Locations

Sample Location	Start Depth	End Depth	Sample Date	Arsenic	Barium	Cadmium	Chromium (total)	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium	Zinc
BG-1	0	1	03/28/2006	12.7	---	---	---	---	---	16.2	649	---	---	4.8	30.8	64.6
BGCOG1	0	1	03/30/2006	68.5	---	---	---	122	---	93.6 J	---	0.40	---	3.2	17.5	107 J
BGCOG2	0	1	03/30/2006	10.9	---	---	---	---	---	30.0 J	857	---	---	2.4	24.2	75.3 J
BGCOG3	0	1	03/29/2006	5.3	---	---	---	---	---	15.0 J	530	---	---	2.4	21.2	---
BGPRK5	0	1	03/29/2006	5.9	---	---	---	---	---	23.9	---	---	---	2.0	17.4	196
BGRR2	0	1	03/29/2006	31.8	---	3.0	50.7	85.7	132000 J	227	2270	---	30.8	14.8	26.7	903
BGRR3	0	1	03/29/2006	14.8	---	---	---	---	---	81.7	820	---	---	---	12.2	109
BGRR3	1.2	1.5	03/29/2006	40.6	---	---	---	30.2	---	57.0	611	---	---	2.2	10.7	81.6
BGRR4	0	1	03/30/2006	7.5	---	---	---	---	---	13.0 J	916	---	---	2.3	30.9	---
BGSLAG	0	2	03/28/2006	---	374 J	---	---	---	---	---	4640	---	---	2.4	20.4	---
BGSLAG	0	2	03/28/2006	---	390 J	---	---	---	---	---	4570	---	---	6.5	18.9	---
BGSLAG	0	2	03/28/2006	---	382 J	---	20.2	---	---	---	4560	---	---	1.9	21.0	---
BGVNW6	0	1	03/29/2006	10.1	---	---	22.0	---	25300 J	877	---	---	---	6.6	35.0	66.2
BGVNW7	0	1	03/29/2006	6.2	---	---	---	---	---	42.5	504	---	---	---	11.4	109

Notes:

Table presents concentrations detected above the method detection limit that exceed one or more soil screening criteria
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All concentrations and screening level units presented in ug/kg
All depths given in feet below ground surface
Additional analytical results available on Background summary tables: Table 4.28-2.



Background Sample Locations		Analyte															
Sample Location	Start Depth	End Depth	Sample Date	Acetone		Acetone		Acetone		Acetone		Acetone		Acetone		Acetone	
				1,2-D	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4
BGRS2	3	3.5	03/29/2006	45000 J	500000	350000	240000	160000	320000	390000	56000 J	1100000	320000	170000	220000	160000	910000
BGVNW7	2.2	2.5	03/29/2006	---	1100 J	1100	1200	---	1000 J	---	250 J	---	---	820 J	220 J	---	---

Notes:
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 ECL - Ecological Screening Level. ECL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Ehymison, et al., 1997); values for earthworms are higher; and 3) USEPA Region 1 ECL (USEPA 2002, available at <http://www.epa.gov/RCSD/Region-Screening-ECL.pdf>). Additional ECL information provided in the NE - Soil screening criteria not established.
 All concentrations and screening level units presented in ug/kg.
 All depths given in feet below ground surface.
 Additional analytical results available on Background summary table: Table 4.28-1.



- Legend**
- Boring location where SVOCs exceed the DAF 10
 - Boring location where SVOCs exceed one or more screening criteria
 - Boring location where SVOCs did not exceed one or more screening criteria
 - Boring location (sample not collected from specified interval)
 - AOC Boundary
 - Roads
 - COG Pipeline
 - Municipal Well
 - Walls/Fences
 - Railroad
 - River
 - Topographic Contours (ft MSL)

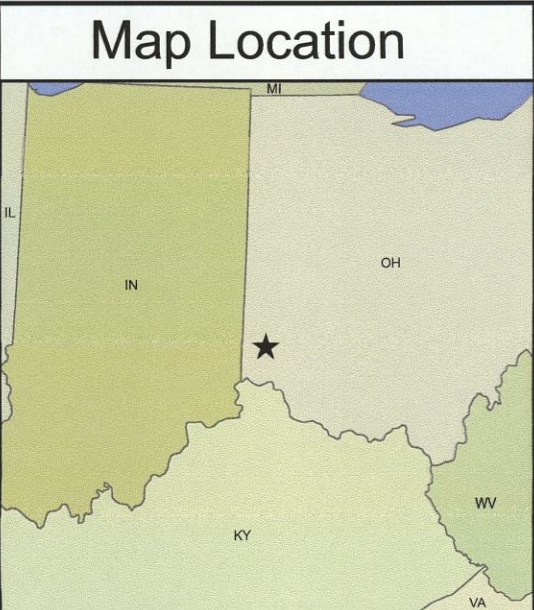


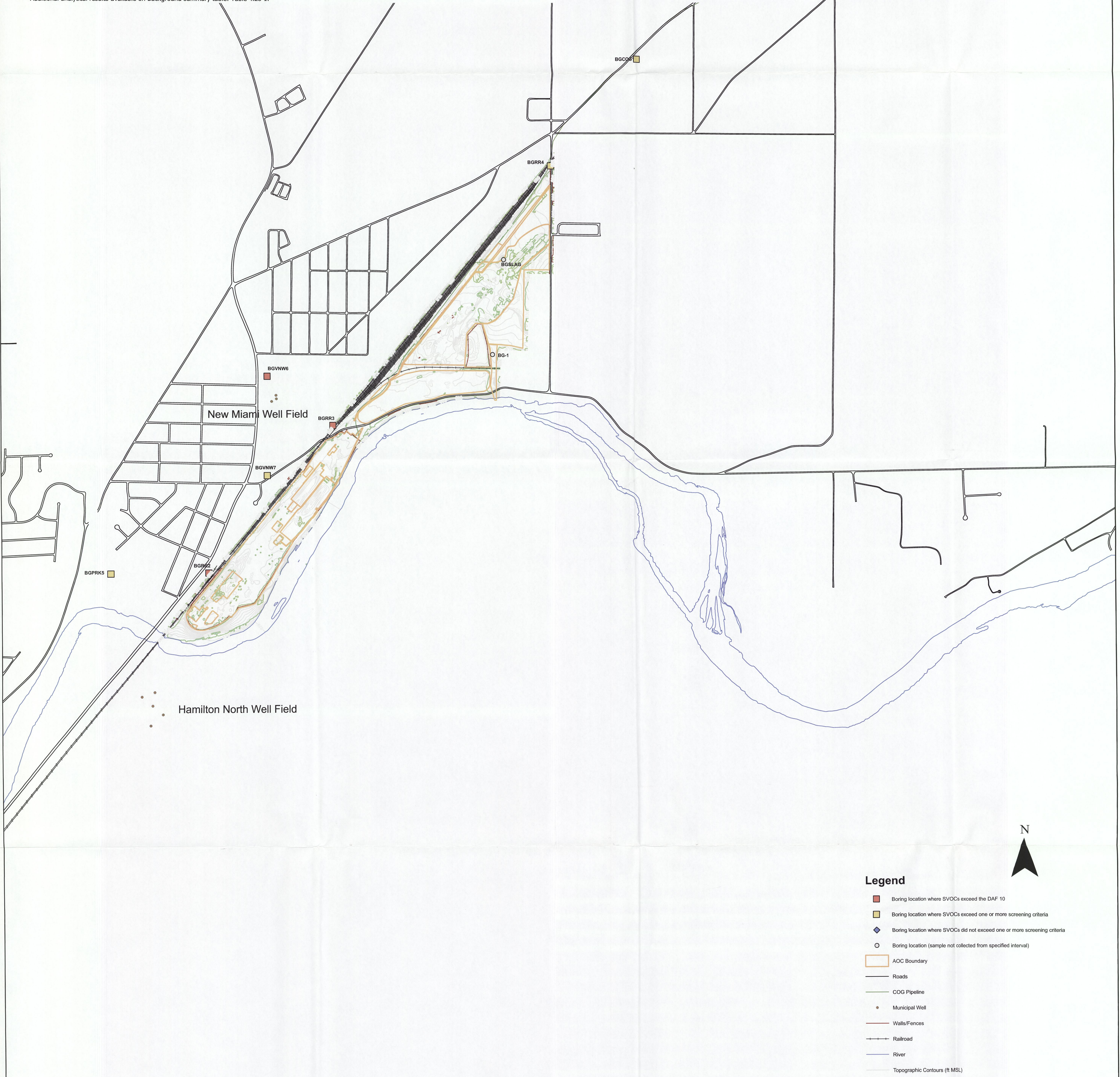
Figure 4.28.0-2 - Soil SVOC Sample Locations and Screening Level Exceedances 2 - 10 ft bgs - Background

Scale: 1 inch equals 700 feet

0 700 1,400 2,800 Feet

Background Sample Locations				Analyte:	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene
				IndPRG:	2.11E+03	2.11E+02	2.11E+03	1.28E+03	2.11E+05	2.11E+02	2.11E+03	1.88E+05
				ResPRG:	6.21E+02	6.21E+01	6.21E+02	3.78E+02	6.21E+04	6.21E+01	6.21E+02	5.59E+04
				DAF10:	8.00E+02	4.00E+03	2.00E+03	2.00E+04	8.00E+04	8.00E+02	7.00E+03	4.00E+04
				ESL:	5.21E+03	1.52E+03	5.98E+04	1.48E+05	4.73E+03	1.84E+04	1.09E+05	9.94E+01
Sample Location	Start Depth	End Depth	Sample Date									
BGCOG1	0	1	03/30/2006	800	880	1100	900	--	220 J	730 J	990	
BGCOG2	0	1	03/30/2006	--	240 J	--	--	--	--	--	250 J	
BGPRK5	0	1	03/29/2006	--	190 J	--	--	--	--	--	--	
BGRR2	0	1	03/29/2006	8600	7200	6300	6500	7500	1300 J	3700	1500 J	
BGRR3	0	1	03/29/2006	2400	2500	2300	2300	--	480 J	1600	110 J	
BGRR4	0	1	03/30/2006	--	220 J	--	--	--	--	--	--	
BGVNW6	0	1	03/29/2006	3600	2600	1700 J	2300 J	--	410 J	1100 J	--	
BGVNW7	0	1	03/29/2006	770 J	780 J	730 J	680 J	--	190 J	--	--	

Notes:
Table presents concentrations detected above the method detection limit that exceed one or more soil screening criteria
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
-- Result not detected above method detection limit or does not exceed one or more soil screening criteria
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004. Concentrations exceeding IndPRG shown with outline.
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004. Concentrations exceeding ResPRG shown in bold font.
DAF-10 - Ten times DAF-1, U.S. EPA Region 9 PRG Table, October 2004. Concentrations exceeding DAF-10 shown with blue shading.
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at <http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf>). Additional ESL information provided in the Ecological Screening Values: Low Effects table. Concentrations exceeding ESL shown with italic text.
NE - Soil screening criteria not established.
All concentrations and screening level units presented in ug/kg
All depths given in feet below ground surface
Additional analytical results available on Background summary table: Table 4.28-1.



- Legend**
- Boring location where SVOCs exceed the DAF 10
 - Boring location where SVOCs exceed one or more screening criteria
 - Boring location where SVOCs did not exceed one or more screening criteria
 - Boring location (sample not collected from specified interval)
 - AOC Boundary
 - Roads
 - COG Pipeline
 - Municipal Well
 - Walls/Fences
 - Railroad
 - River
 - Topographic Contours (ft MSL)

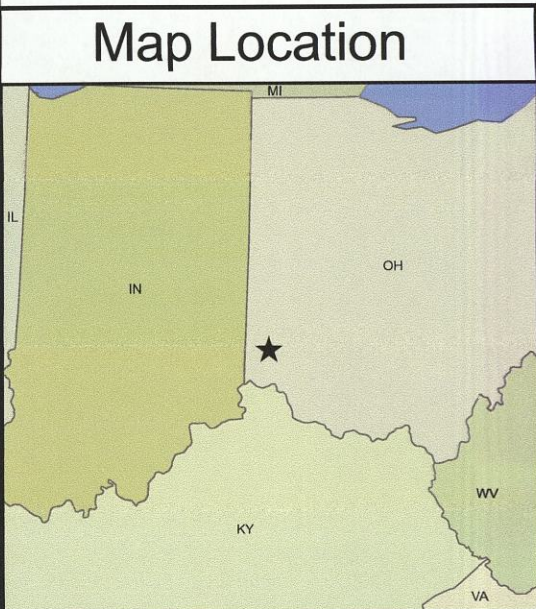


Figure 4.28.0-1 - Soil SVOC Sample Locations and Screening Level Exceedances 0 - 2 ft bgs - Background



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Project # 00076-069
August 2007

Scale: 1 inch equals 700 feet

0 700 1,400 2,800 Feet

			Analyte:	Aroclor 1248	Aroclor 1260	Total PCBs*
			SE_ESL_SEVERE:	6.8E+02	6.8E+02	6.8E+02
Sample Location	Start Depth	End Depth	Sample Date			
GMRSD1	0.167	0.167	11/09/2005	--	--	721.5
GMRSD6	0.167	0.167	11/09/2005	1300	940	2935
GMRSD28	0	0.033	09/26/2007	--	--	1025

Notes:
Table presents concentrations detected above the method detection limit that exceed the sediment screening criteria
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
-- Result not detected above method detection limit or does not exceed the sediment screening criteria
* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.
SE_ESL_SEVERE - Sediment Ecological Screening Level. The effect-based sediment screening benchmarks included the following ecotoxicological screening values: 1) If a consensus-based Probable Effect Concentration (PEC) was available for a constituent, this value was preferentially selected; 2) If no PEC was available for a constituent, then severe effect levels (SELs) from the Ontario Ministry of the Environment (OMOE) were selected. Organic carbon-dependent SELs were adjusted to either the average TOC of the AOC 7 sediment (2%) or the Great Miami River sediment (1.6%); or, 3) If neither a PEC nor an OMOE SEL was available, then effects range-medium (ER-M) values from NOAA were selected.
All concentrations and screening level units presented in ug/kg
All depths given in feet below sediment surface
Additional analytical results available on Great Miami River summary table: Table 4.26-4.



Sample Location	Start Depth	End Depth	Analyte:	Aluminum	Chromium (total)	Copper	Iron	Lead	Nickel	Zinc
			SE_ESL_SEVERE: Sample Date	5.3E+04	1.1E+05	1.5E+05	6.4E+03	1.3E+05	4.9E+04	4.6E+05
GMRSD1	0.167	0.167	11/08/2005	5680000	--	--	12700000	224000	--	--
GMRSD14	0.167	0.167	11/10/2005	12500000	--	--	31200000	--	--	--
GMRSD15	0.25	0.25	11/10/2005	2330000	--	--	13400000	--	--	--
GMRSD16	0.083	0.167	11/11/2005	2300000	--	--	7000000	--	--	--
GMRSD17	0.333	0.333	11/11/2005	4170000	--	--	10800000	--	--	--
GMRSD18	0.333	0.333	11/11/2005	5230000	--	--	12700000	--	--	--
GMRSD19	0.167	0.167	11/11/2005	22200000	224000 J	275000	57700000	224000	73700	686000
GMRSD2	0.167	0.167	11/09/2005	2460000	--	--	7980000	--	--	--
GMRSD3	0.167	0.167	11/09/2005	5570000	--	--	13800000	--	--	--
GMRSD4	0.042	0.042	11/09/2005	5870000	--	--	17600000	--	--	--
GMRSD5	0.066	0.066	11/09/2005	9600000	--	163000	23700000	372000	--	681000 J
GMRSD6	0.167	0.167	11/09/2005	6240000	--	--	14100000	--	--	--
GMRSD7	0.167	0.167	11/09/2005	11100000	--	--	22700000	--	--	--
GMRSD8	0.25	0.25	11/08/2005	2700000	--	--	6800000	--	--	--
GMRSD9	0.083	0.083	11/10/2005	18100000	--	--	34700000	--	--	--

Notes:
Table presents concentrations detected above the method detection limit that exceed the sediment screening criteria
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
-- Result not detected above method detection limit or does not exceed the sediment screening criteria
SE_ESL_SEVERE - Sediment Ecological Screening Level. The effect-based sediment screening benchmarks included the following ecotoxicological screening values: 1) If a consensus-based Probable Effect Concentration (PEC) was available for a constituent, this value was preferentially selected; 2) If no PEC was available for a constituent, then severe effect levels (SELs) from the Ontario Ministry of the Environment (OMOE) were selected. Organic carbon-dependent SELs were adjusted to either the average TOC of the AOC 7 sediment (2%) or the Great Miami River sediment (1.6%); or, 3) If neither a PEC nor an OMOE SEL was available, then effects range-medium (ER-M) values from NOAA were selected.
All concentrations and screening level units presented in ug/kg
All depths given in feet below sediment surface
Additional analytical results available on Great Miami River summary table: Table 4.26-3.

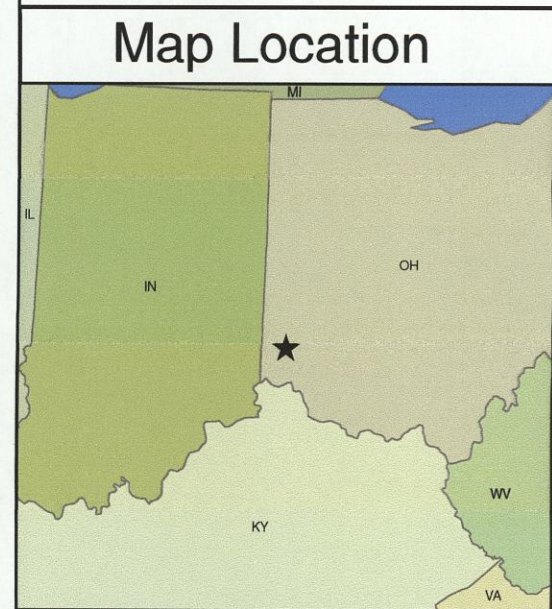
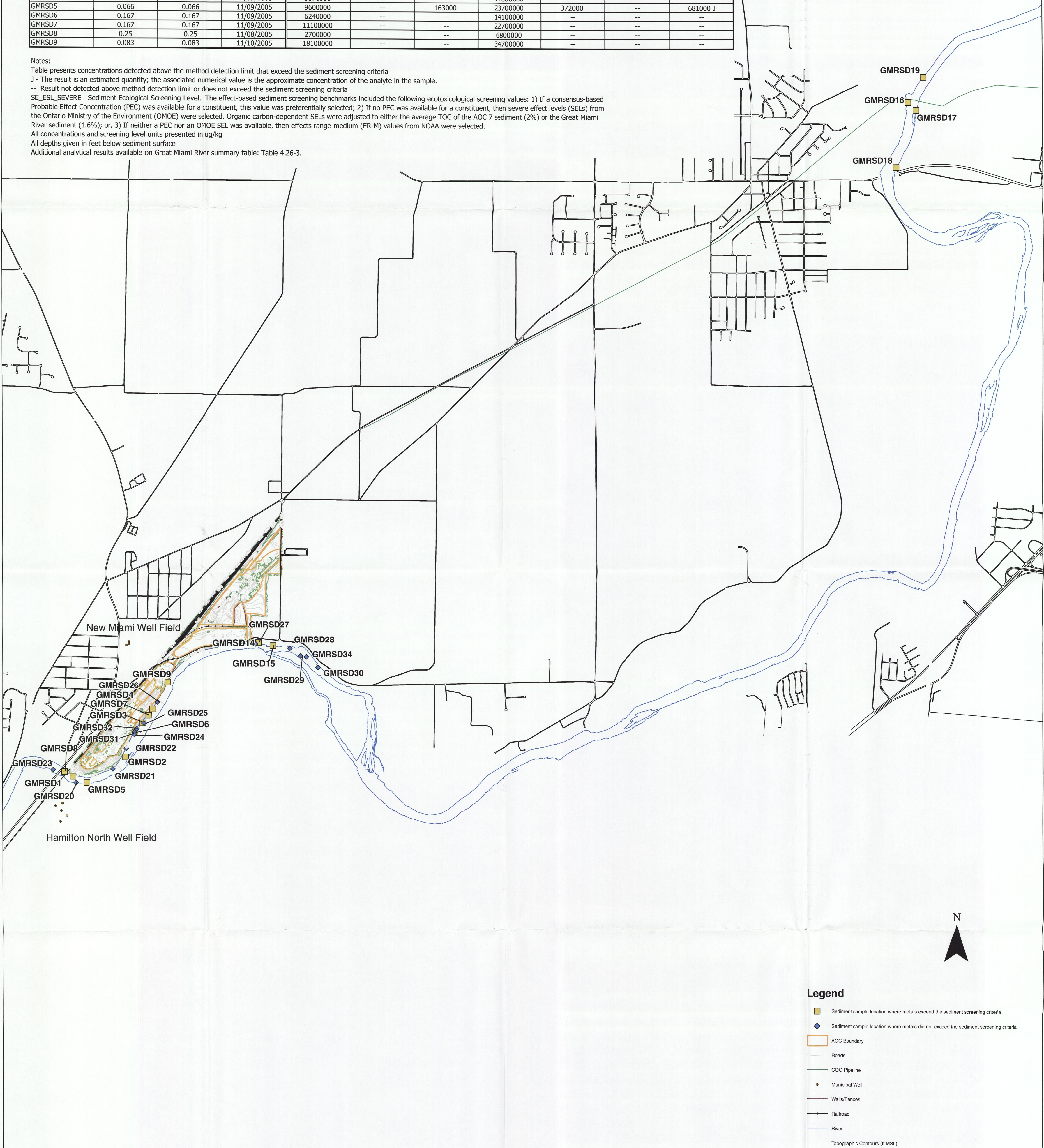
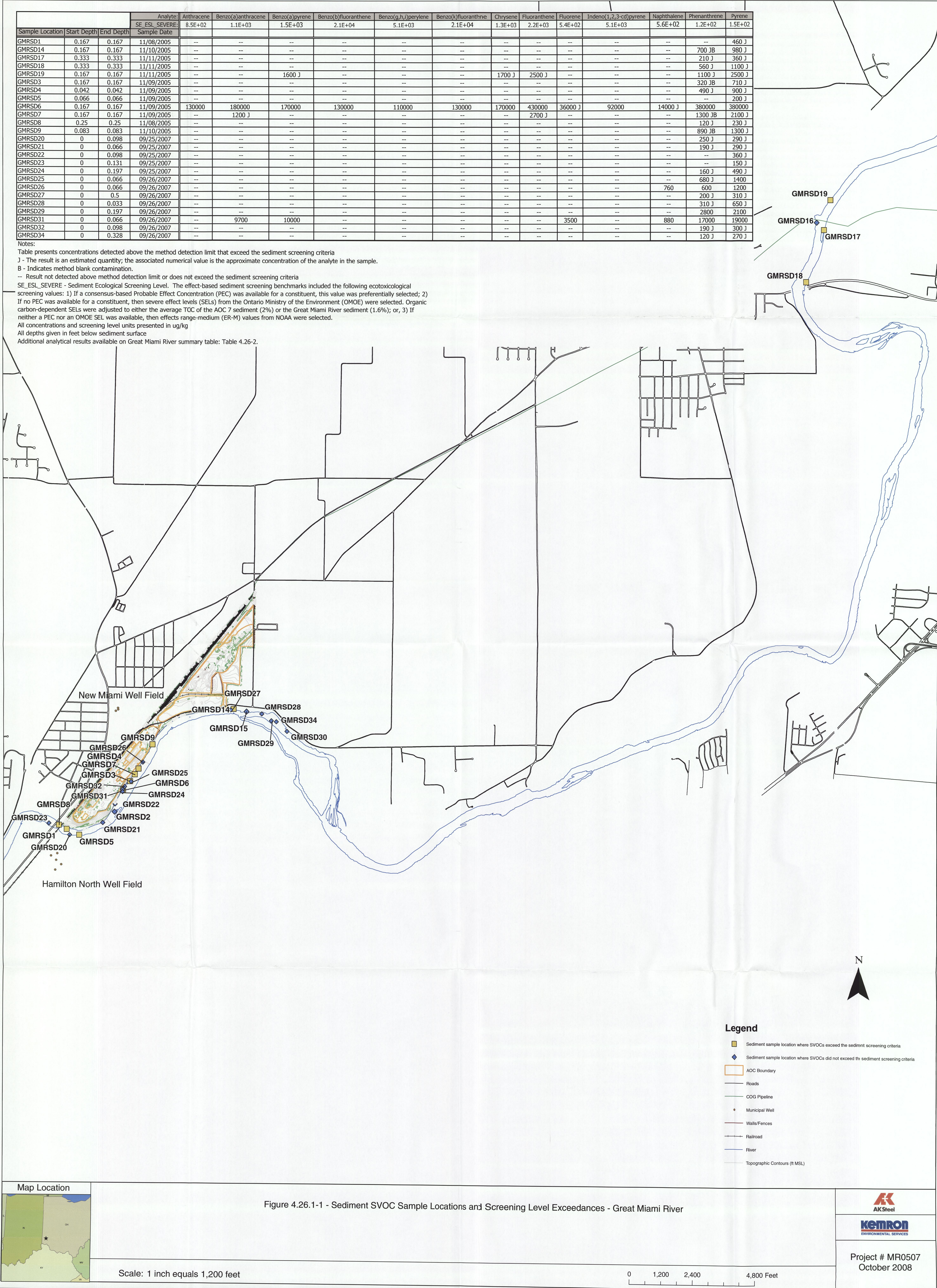


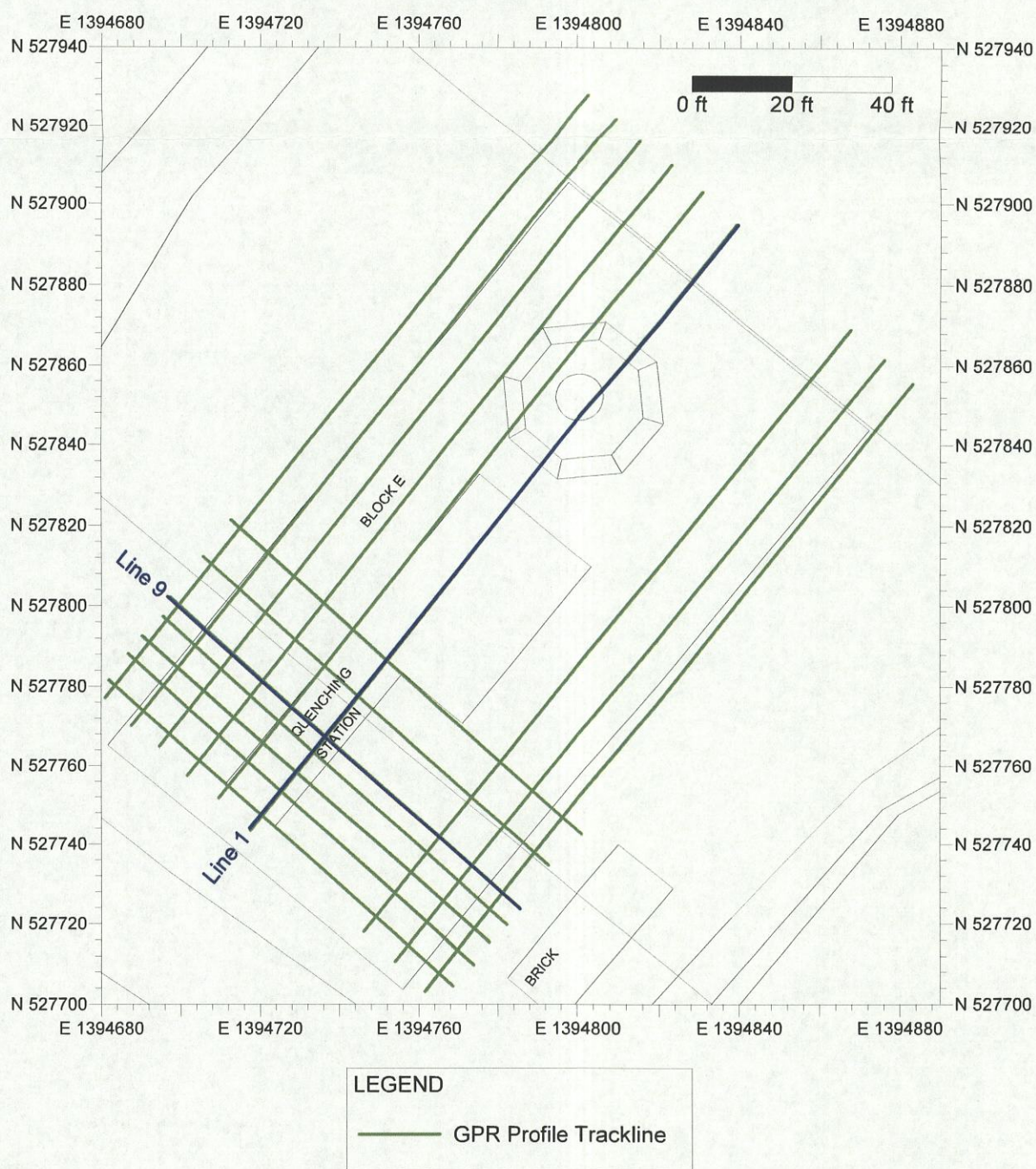
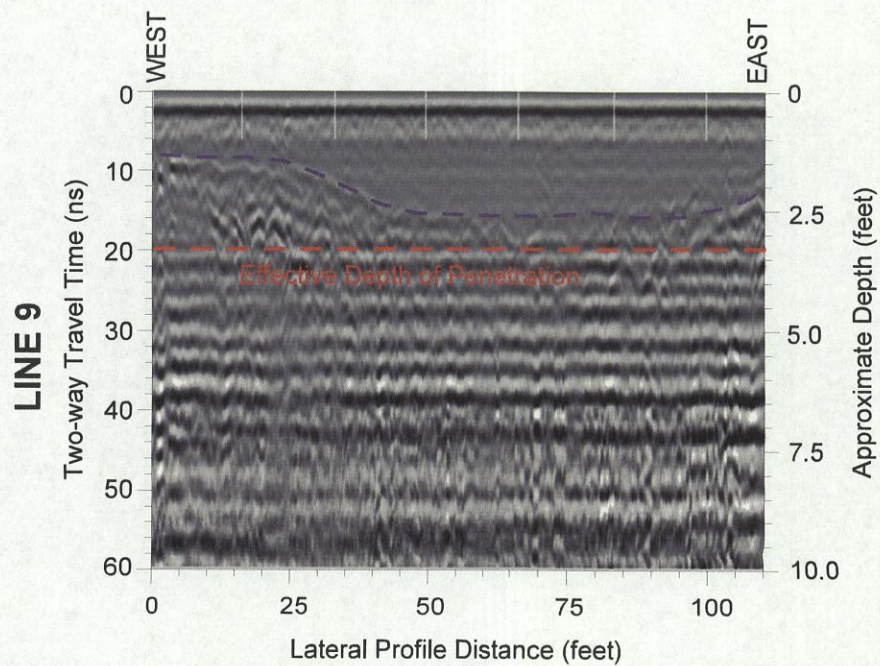
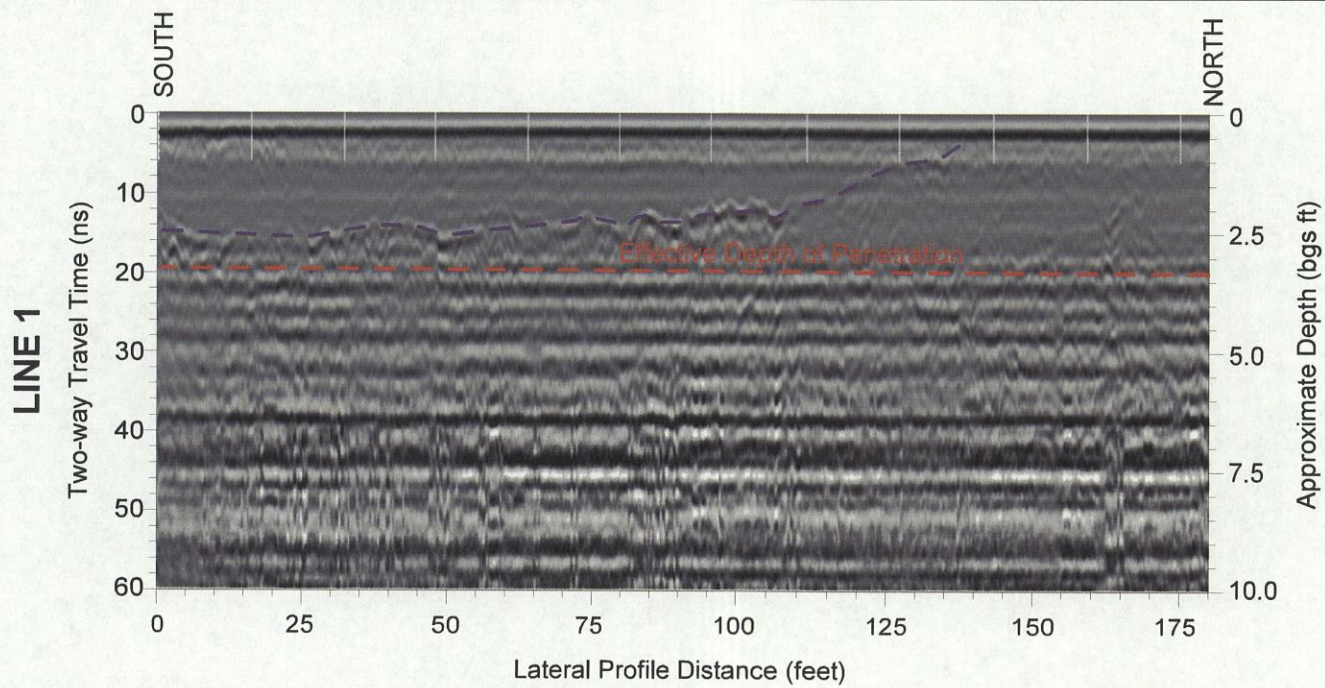
Figure 4.26.1-2 - Sediment Metals Sample Locations and Screening Level Exceedances - Great Miami River

Scale: 1 inch equals 1,200 feet

0 1,200 2,400 4,800 Feet

Project # MR0507
October 2008





LEGEND
— GPR Profile Trackline

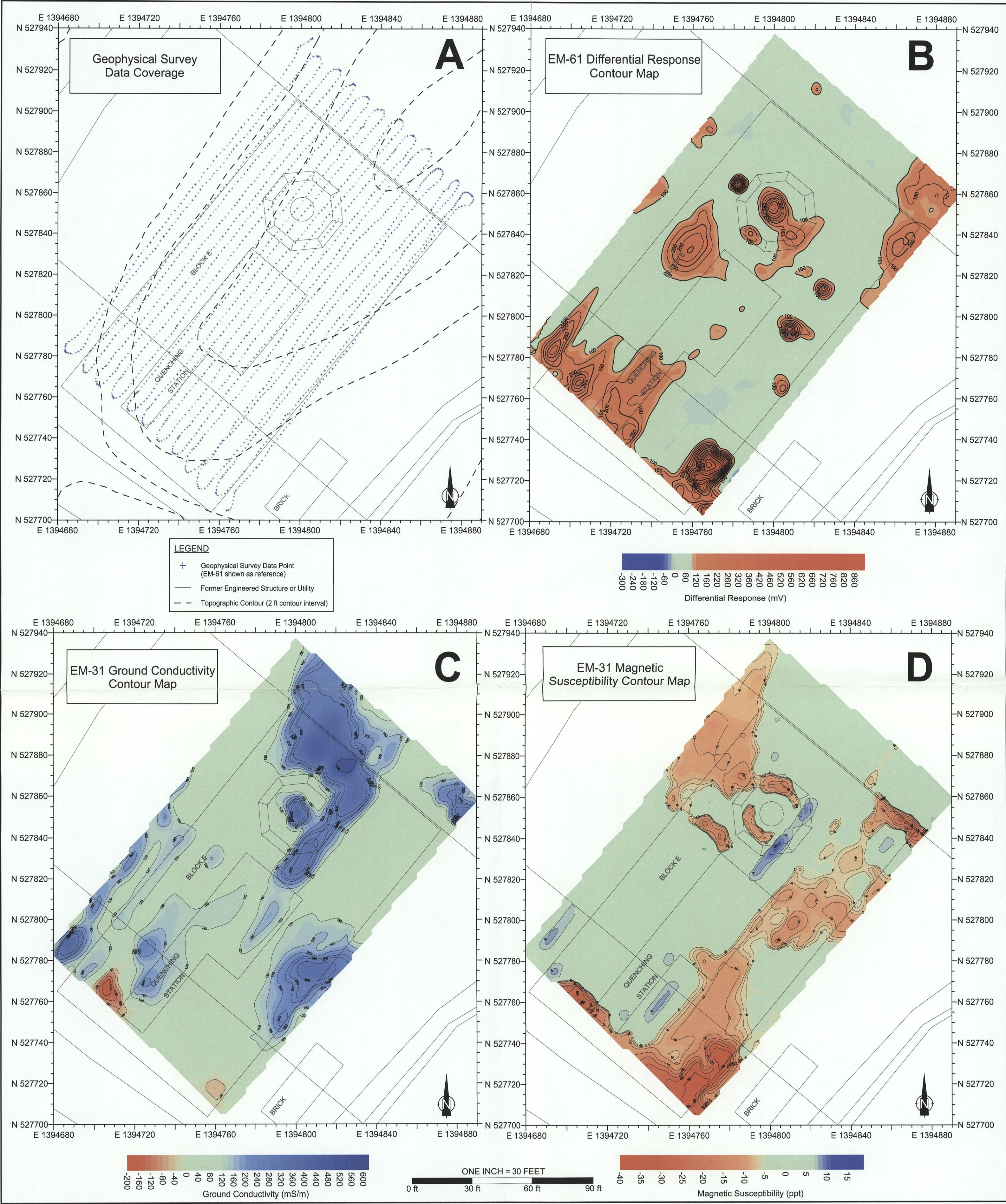


FIGURE 4.23.2-1

Geophysical Survey Contour Maps
Block E Quenching Station Area
AK Steel Corporation
Former Armco Hamilton Plant
401 Augspurger Road
New Miami, Butler County, OH
August 2005

SCALE:	DATE:	PROJECT NUMBER:
AS SHOWN	06/22/06	00076-069-300

ENSR AECOM

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NOTES:

Ground conductivity and magnetic susceptibility data were collected using a Geonics, Ltd. EM-31 terrain conductivity meter. Instrument was used in vertical dipole mode.

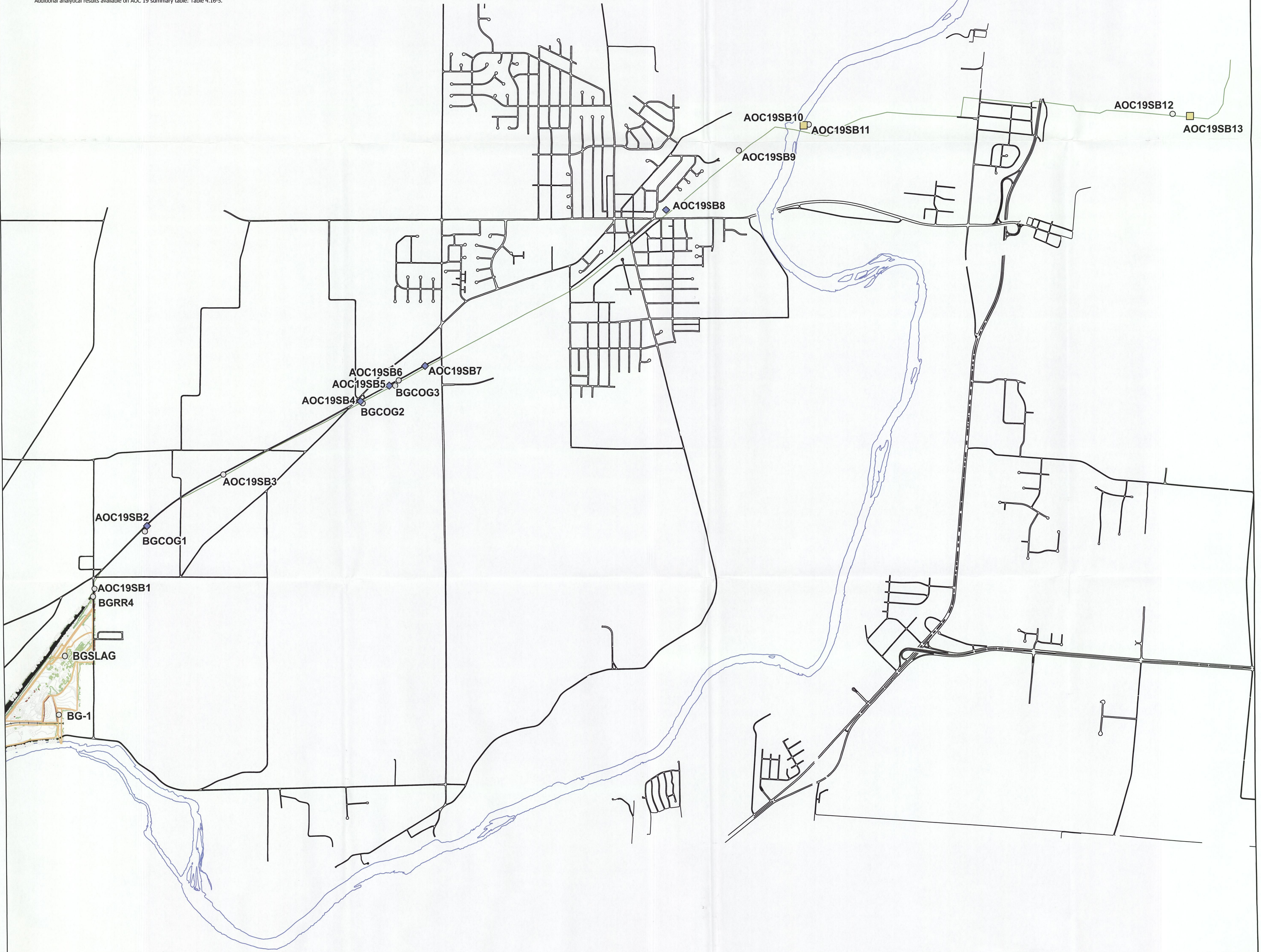
Differential Response electromagnetic data were collected using a Geonics, Ltd. EM-61 high sensitivity metal detector with 1.0 x 0.5 meter coils.

Position control was maintained using a Trimble GeoXT Differential GPS (DGPS) in Ohio South State Plane coordinate system, NAD83 Geodetic Datum.

Data collection profile spacing was approximately 5 feet with station spacing at approximately 2.5 feet.

Analyte	1,2,3,4,6,7,8- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,4,6,7,8- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,4,7,8,9- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,4,7,8- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,4,7,8- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,6,7,8- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,6,7,8- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,6,7,8- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,7,8,9- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,7,8,9- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,7,8- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,7,8- HEPTACHLORODIB ENZO-P-DIOXIN	1,2,3,7,8- HEPTACHLORODIB ENZO-P-DIOXIN
IndPRG	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1.6E+01
ResPRG	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	3.9E+00
DAF 10	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	2.0E-01
ESL	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01	2.0E-01
Sample Location	Start Depth	End Depth	Sample Date										
AOC19SB10	4	5.7	02/08/2006	23.776	161.319 B	2.14 J	3.812	1.84 JK	2.054 J	6.728	0.387 JK	4.82	1.876 J
AOC19SB13	4	5.4	02/08/2006	25.529	106.414 B	4.391	3.297	0.78 JK	2.445 J	4.185	0.342 J	2.892	0.246 J

Notes:
 Table presents concentrations detected above the method detection limit that exceed one or more soil screening criteria
 B - Indicates method blank contamination.
 J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
 K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).
 -- Result not detected above method detection limit or does not exceed one or more soil screening criteria
 IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004. Concentrations exceeding IndPRG shown with outline.
 ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004. Concentrations exceeding ResPRG shown in bold font.
 DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004. Concentrations exceeding DAF 10 shown with blue shading.
 ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Elroysson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at <http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf>). Additional ESL information provided in the Ecological Screening Values: Low Effects table. Concentrations exceeding ESL shown with italic text.
 NE - Soil screening criteria not established.
 All concentrations and screening level units presented in ng/kg
 All depths given in feet below ground surface
 Additional analytical results available on AOC 19 summary table: Table 4.16-5.



- Legend**
- Boring location where dioxins exceeded one or more screening criteria
 - ◆ Boring location where dioxins did not exceed one or more screening criteria
 - Boring location (sample not collected from specified interval)
 - AOC Boundary
 - COG Pipeline
 - Roads
 - Walls/Fences
 - Railroad
 - River
 - Topographic Contours (ft MSL)

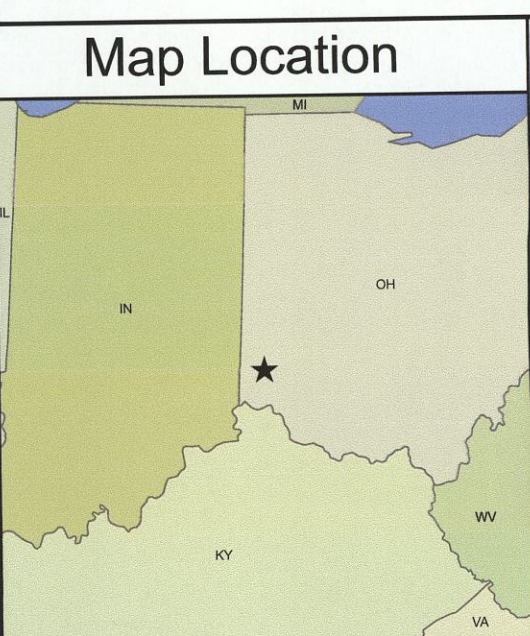


Figure 4.16.1-8 - Soil Dioxins Sample Locations and Screening Level Exceedances 2 - 10 ft bgs - Offsite COG Pipeline

Scale: 1 inch equals 1,300 feet

0 1,250 2,500 5,000 Feet



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Project # 00076-069
August 2007